CLAIMS

1. Cosmetic use, as a gelling agent, of at least one linear or cyclic polyorganosiloxane which comprises at least two organosiloxy units and at least two side and/or end groups each capable of forming at least one hydrogen bond with one or more partner groups, the said organosiloxy units being represented by the following formula:

 $R_a R'_bSiO_{(4-a-b)/2}$

in which:

R represents a linear, branched or cyclic alkyl group, an aryl group, a polyether group or a fluoro group,

R' represents a group capable of forming at least one hydrogen bond,

a is 1, 2 or 3, and

- b is 0 or 1, with the proviso that a+b is equal to 2 or 3, the said group R' being chosen from:
 - (a) groups derived from unprotected or partially protected amino acids, and
 - (b) carboxylic acid, amine or phenol groups of formula:

 $-X-(Y)_{n}-Z$

in which:

X represents a linear, branched or cyclic spacer chain, of alkylene or alkenylene type, optionally comprising one or more hetero atoms in the chain,

- Y represents a monocyclic or polycyclic divalent unsaturated hydrocarbon-based group or a divalent unsaturated heterocyclic group, these polycyclic or heterocyclic groups possibly comprising up to 4 fused rings,
- n represents an integer ranging from 1 to 4, and Z represents a -COOH or -OH group or a primary, secondary or tertiary amine group, the nitrogen atom of which optionally forms part of a heterocyclic group Y.

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- 2. Cosmetic use according to Claim 1, characterized in that the polyorganosiloxane contains from 2 to 50,000 organosiloxy units and preferably from 2 to 30,000 organosiloxy units.
- one or more partner groups.

 Cosmetic use according to Claim 1 or 2, characterized in that the side and/or end groups of the polyorganosiloxane are each capable of forming at least two hydrogen bonds with one or more partner groups.
- Use in cosmetics according to any one of Claims 1 to
 3, characterized in that Y represents a 6-membered aromatic nucleus and Z represents a -COOH group.
 - 5. Use in cosmetics according to Claim 4, characterized in that the polyorganosiloxane corresponds to the following formula:

$$HOOC \longrightarrow O-(CH_2)_3 \longrightarrow \begin{pmatrix} CH_3 \\ Si-O \\ CH_3 \end{pmatrix} \begin{pmatrix} CH_3 \\ Si \\ CH_3 \end{pmatrix} (CH_2)_3 \longrightarrow COOH$$

with t ranging from 1 to 1200.

represents a pyridyl group.

6. Use in cosmetics according to Claim 5, characterized in that the polyorganosiloxane corresponds to the following formula:

HOOC—
$$CH_2$$
)₃ CH_3 CH_3

- 7. Use in cosmetics according to any one of Claims 1 to 3, characterized in that, when Z represents an amino group, the nitrogen atom forms part of a heterocyclic group Y, and Y-Z
- 25 8. Cosmetic composition, characterized in that it comprises, in a cosmetically acceptable medium, at least one linear or cyclic polyorganosiloxane, which comprises at least

two organosiloxy units and at least two side and/or end groups which are each capable of forming at least one hydrogen bond with one or more partner groups, the said organosiloxy units being represented by the following formula:

 R_a R'_bSiO_{(4-a-b)/2}

in which:

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R represents a linear, branched or cyclic alkyl group, an aryl group, a polyether group or a fluoro group,

R' represents a group capable of forming at least 10 one hydrogen bond,

a is 1, 2 or 3, and

b is 0 or 1, with the proviso that a+b is equal to 2 or 3,

the said group R' being chosen from:

- 15 (a) groups derived from unprotected or partially protected amino acids, and
 - (b) carboxylic acid, amine or phenol groups of formula:

$$-X-(Y)_n-Z$$

in which:

- 20 X represents a linear, branched or cyclic spacer chain, of alkylene or alkenylene type, optionally comprising one or more hetero atoms in the chain,
- Y represents a monocyclic or polycyclic divalent unsaturated hydrocarbon-based group or a divalent unsaturated heterocyclic group, these polycyclic or heterocyclic groups possibly comprising up to 4 fused rings,
 - n represents an integer ranging from 1 to 4, and Z represents a -COOH or -OH group or a primary, secondary or tertiary amine group, the nitrogen atom of which optionally forms part of the heterocyclic group Y.
 - 9. Cosmetic composition according to Claim 8, characterized in that the polyorganosiloxane comprises from 2

to 50,000 organosiloxy units and preferably from 2 to 30,000 organosiloxy units.

- 10. Cosmetic composition according to Claim 8 or 9, characterized in that the side and/or end groups of the polyorganosiloxane are each capable of forming at least two hydrogen bonds with one or more partner groups.
- 11. Cosmetic composition according to any one of Claims 8 to 10, characterized in that Y represents a 6-membered aromatic nucleus and Z represents a -COOH group.
- 10 12. Cosmetic composition according to Claim 11, characterized in that the polyorganosiloxane corresponds to the following formula:

HOOC
$$\longrightarrow$$
 O- $(CH_2)_3$ \leftarrow $\begin{pmatrix} CH_3 \\ Si - O \\ CH_3 \end{pmatrix}$ $\begin{pmatrix} CH_3 \\ Si \\ CH_3 \end{pmatrix}$ $\begin{pmatrix} CH_3 \\ CH_2 \end{pmatrix}_3$ \leftarrow COOH

with t ranging from 1 to 1200.

13. Cosmetic composition according to Claim 12, characterized in that the polyorganosiloxane corresponds to the following formula:

HOOC—
$$CH_2$$
)₃ $+ CH_3$ CH_3 CH_3 CH_3 CH_2)₄ $- COOH$.

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- 14. Cosmetic composition according to any one of Claims 8 to 10, characterized in that, when Z represents an amino group, the nitrogen atom forms part of a heterocyclic group Y, and Y-Z represents a pyridyl group.
- 25 15. Cosmetic composition according to any one of Claims 8 to 14, characterized in that the amount of the polyorganosiloxane is between 0.5% and 50% by weight relative to the total weight of the cosmetic composition.

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- 16. Cosmetic composition according to Claim 15, characterized in that the amount of the polyorganosiloxane is between 1% and 30% by weight relative to the total weight of the cosmetic composition.
- 5 17. Cosmetic composition according to any one of Claims 8 to 16, characterized in that the cosmetically acceptable medium comprises a fatty phase, optionally organic solvents and optionally water.
- 18. Cosmetic composition according to Claim 17, 10 characterized in that the fatty phase comprises fatty substances that are liquid at room temperature and/or fatty substances that are solid at room temperature.
 - 19. Cosmetic composition according to Claim 18, characterized in that the fatty substances that are liquid at room temperature comprise a silicone oil and/or a hydrocarbon-based oil.
 - 20. Cosmetic composition according to Claim 19, characterized in that it comprises at least one silicone oil.

 21. Cosmetic composition according to Claim 20,
- characterized in that the silicone oil is chosen from polydimethylsiloxanes (PDMSs), that are optionally phenylated, such as phenyltrimethicones, phenyltrimethylsiloxanes, diphenylmethyldimethyltrisiloxanes, diphenyldimethicones, phenyldimethicones,
- 25 polymethylphenylsiloxanes, optionally substituted with aliphatic and/or aromatic groups, or optionally fluorinated; polysiloxanes modified with fatty acids, fatty alcohols or polyoxyalkylenes, fluorosilicones and perfluorosilicone oils.
- 22. Cosmetic composition according to Claim 19, characterized in that the hydrocarbon-based oil is chosen from liquid paraffin, liquid petroleum jelly, mink oil, turtle oil, soybean oil, perhydrosqualene, sweet almond oil, beauty-leaf

oil, palm oil, grape pip oil, sesame oil, corn oil, parleam oil, arara oil, rapeseed oil, sunflower oil, cottonseed oil, apricot oil, castor oil, avocado oil, jojoba oil, olive oil or cereal germ oil; esters of linoleic acid, of oleic acid, of lauric acid or of stearic acid; fatty esters, such as isopropyl 5 myristate, isopropyl palmitate, butyl stearate, hexyl laurate, diisopropyl adipate, isononyl isononanoate, 2-ethylhexyl palmitate, 2-hexyldecyl laurate, 2-octyldecyl palmitate, lactate, bis(2-ethylhexyl) 2-octyldodecyl myristate orsuccinate, diisostearyl malate, glyceryl triisostearate or 10 diglyceryl triisostearate; higher fatty alcohols containing at least 12 carbon atoms, such as stearyl alcohol, oleyl alcohol, linoleyl alcohol, linolenyl alcohol, isostearyl alcohol or octyldodecanol.

- 15 23. Cosmetic composition according to Claim 18, characterized in that the fatty substances that are solid at room temperature comprise waxes, gums and/or pasty fatty substances.
- 24. Cosmetic composition according to Claim 23, characterized in that the waxes are chosen from waxes of animal origin, plant waxes, mineral waxes, synthetic waxes and the waxes obtained by Fisher-Tropsch synthesis, or alternatively silicone waxes and hydrogenated oils that are solid at 25°C.
- 25. Cosmetic composition according to Claim 23,
 25 characterized in that the gums are chosen from high molecular weight polydimethylsiloxanes.
 - 26. Cosmetic composition according to Claim 23, characterized in that the pasty fatty substances are chosen from hydrocarbon-based compounds and polydimethylsiloxanes.
- 27. Cosmetic composition according to any one of Claims 8 to 26, characterized in that it also comprises additives chosen from fillers, pigments, colourants, surfactants, sunscreens, antioxidants, fragrances and

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preserving agents.

- 28. Cosmetic composition according to any one of Claims 8 to 27, characterized in that it is anhydrous.
- 29. Cosmetic composition according to any one of Claims 8 to 28, characterized in that it is in the form of a stick or tube, in the form of a soft paste, with a dynamic viscosity at 25°C of about from 1 to 40 Pa.s, or in the form of a dish, an oily gel or an oily liquid.
- 30. Cosmetic composition according to any one of Claims 8 to 29, characterized in that it is used for making up and/or caring for the skin, including the skin of the eyelids, and also the lips and superficial body growths.
 - 31. Cosmetic composition according to any one of Claims 8 to 30, characterized in that it is in the form of a lipstick, a mascara, an eyeliner, a foundation, a powder, a blusher, an eyeshadow or a body make-up.
 - 32. Cosmetic composition according to any one of Claims 8 to 30, characterized in that it is in the form of a moisturizing product, a deodorant or an antiperspirant.